Title (en)
ARITHMETIC UNIT, METHOD AND PROGRAM FOR COMPUTING A CONTACT CONDITION BETWEEN TWO SURFACES

Title (de)
ARITHMETISCHE EINHEIT, VERFAHREN UND PROGRAMM ZUR BERECHNUNG EINER KONTAKTBEDINGUNG ZWISCHEN ZWEI OBERFLÄCHEN

Title (fr)
UNITÉ ARITHMÉTIQUE, PROCÉDÉ ET PROGRAMME POUR CALCULER UNE CONDITION DE CONTACT ENTRE DEUX SURFACES

Publication
EP 3372954 B1 20190515 (EN)

Application
EP 18153686 A 20180126

Priority
- JP 2017044992 A 20170309
- JP 2017119810 A 20170619

Abstract (en)
[origin: EP3372954A1] An arithmetic unit that predicts a contact area or a normal force arising in a case in which two rough surfaces are in contact with each other. The arithmetic unit includes: a distribution computation section that computes from roughness distributions an asperity height distribution, which is a probability density function defining a probability of a height of an asperity peak from a reference plane being a particular height; and a contact computation section that, based on the asperity height distribution computed for each of the two rough surfaces, computes a real contact area, which is an actual contact area in a case in which the two rough surfaces are in contact, or a normal force in a case in which the two rough surfaces are in contact.

IPC 8 full level
G01B 21/30 (2006.01)

CPC (source: EP)
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Cited by
CN113076606A; CN115358442A; CN109657405A; CN110631520A; CN113486456A

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